

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:  
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## RECEIVED

JAN 12 2005

## CANTOR COLBURN LLP

## PCT

WRITTEN OPINION

(PCT Rule 66)

Date of Mailing  
(day/month/year) **10 JAN 2005**

Applicant's or agent's file reference

EBA-0022-F

REPLY DUE

within 1 months/days from  
the above date of mailing

International application No.

PCT/US03/22723

International filing date (day/month/year)

21 July 2003 (21.07.2003)

Priority date (day/month/year)

24 July 2002 (24.07.2002)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): H02H 3/00 and US Cl.: 361/56,90,111

Applicant

ENSIGN-BICKFORD AEROSPACE & DEFENSE COMPANY

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2 (a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

**DOCKETED**  
 Due: FEB 10 2005  
 Item: REPLY TO WRITTEN OPINION  
 Initials: plc On 1/17/05

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension. See rule 66.2(d).~~

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.  
For an informal communication with the examiner, see Rule 66.6

**If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 21 November 2005 (21.11.2005)

Name and mailing address of the IPEA/US

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# WRITTEN OPINION

International application No.

PCT/US03/22723

## I. Basis of the opinion

### 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages 1-8, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the claims:  
 pages 9 and 10, as originally filed  
 pages NONE, as amended (together with any statement) under Article 19  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☒ the drawings:  
 pages 1-4, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.
- ☐ the sequence listing part of the description:  
 pages NONE, as originally filed  
 pages NONE, filed with the demand  
 pages NONE, filed with the letter of \_\_\_\_\_.

### 2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

### 3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

### 5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed."

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International application No.  
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**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. STATEMENT**

Novelty (N)	Claims <u>5,6 and 8</u>	YES
	Claims <u>1-4 and 7</u>	NO
Inventive Step (IS)	Claims <u>none</u>	YES
	Claims <u>1-8</u>	NO
Industrial Applicability (IA)	Claims <u>1-8</u>	YES
	Claims <u>NONE</u>	NO

**2. CITATIONS AND EXPLANATIONS**

Claims 1-4, 7 lack novelty under PCT Article 33(2) as being anticipated by Ker et al. Ker et al teach a protection device (fig. 6) comprises an electrical element having input nodes (shown in fig. 6), a protective circuitry (such as 45) connected across the input nodes, the protective circuitry comprising a clamping portion (10), a timer portion (80 and 85) connected to clamping portion and the input nodes for issuing a signal to the clamping portion, column 3, lines 7-21; column 4, lines 19-50.

Claim 5 lacks an inventive step under PCT Article 33(3) as being obvious over Ker et al in view of Page and Erhard. Ker et al disclose all limitations of claim 1 as discussed above, but do not disclose the clamping portion and the timer circuit as claimed. Page discloses a protective circuit (fig. 4) comprises a voltage clamping circuit is unipolar (see abstract) and Erhard discloses an apparatus for internal combustion engines comprises a timer circuit is unipolar (see col. 6, lines 3-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the protective circuit of Ker to incorporate the unipolar clamping circuit as disclosed Page and the unipolar timer circuit as taught by Erhard in order to protect the input terminal against transient voltage (Page, col. 2, lines 11-20) and improve the reliability and safety of the device (Erhard, col. 5, lines 15-17).

Claim 6 lacks an inventive step under PCT Article 33(3) as being obvious over Ker et al in view of Hartley and DeFrancesco. Ker et al disclose all limitations of claim 1 as discussed above, but do not disclose the clamping portion and the timer circuit as claimed. Hartley discloses a protective circuit comprises a voltage clamping is bipolar (col. 1, lines 15-24) and DeFrancesco discloses a speed control circuit comprises a timer circuit is a bipolar timer (col. 2, lines 44-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the protective circuit of Ker to incorporate the bipolar clamping circuit as disclosed Hartley and the bipolar timer circuit as taught by DeFrancesco in order to protect the circuit against transient voltage (Hartley, col. 1, lines 15-24) and control speed of the device (DeFrancesco, col. 2, lines 40-65).

Claim 8 lacks an inventive step under PCT Article 33(3) as being obvious over Ker et al in view of Prinz et al. Ker discloses all limitations of claim 1 as discussed above, but does not teach the protective circuit as claimed. Prinz discloses a protective circuit is mounted on a header comprising two leads and a shell mounted on the header (fig. 1). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the circuit of Ker to incorporate the initiator as taught by Prinz in order provide transient voltage protection.

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**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.